UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,310	12/17/2001	Chetana N. Keltcher	5500-75900	2304

7590 11/10/2004

Lawrence J. Merkel
Conley, Rose & Tayon, P.C.
P.O. Box 398
Austin, TX 78767

EXAMINER	
TORRES, JOSEPH D	

ART UNIT	PAPER NUMBER
2133	

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/023,310	KELTCHER ET AL.	
	Examiner	Art Unit	
	Joseph D. Torres	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. In view of the Applicant's amendment filed 07/19/2004, the Examiner withdraws all previous 35 USC § 112 rejections.

Response to Arguments

2. Applicant's arguments filed 07/19/2004 have been fully considered but they are not persuasive.

The Applicant contends, "The microcontroller 200 'is dedicated to error computation and detection' Bonke, (col. 18, lines 51-52). Accordingly, notlling in Bonke's microcontroller 200 teaches or suggests 'execution circuitry configured to execute a first instruction which causes an access to first data in a memory [for which the ECC error is detected'". The Examiner disagrees and asserts that Figures 7A-7B and col. 28, lines 44-54 in Bonke teach that the microcode executed by the microcontroller execution and microcode unit 200 is capable of posting error information to microprocessor 34 to initiate a read retry, hence Bonke teaches microcontroller execution and microcode unit 200 configured to execute a first instruction which causes an access to first data in a memory (col. 28, lines 44-54 in Bonke teach that the microcode executed by the microcontroller execution and microcode unit 200 is capable of posting error information to microprocessor 34 to initiate a read retry) wherein the microcode unit component of

the microcontroller execution and microcode unit 200 is coupled to the execution circuitry of the microcontroller execution and microcode unit 200 and the execution circuitry is further configured to execute the instructions in the microcode routine.

The Examiner disagrees with the applicant and maintains all rejections of claims 1-43. All amendments and arguments by the applicant have been considered. It is the Examiner's conclusion that claims 1-43 are not patentably distinct or non-obvious over the prior art of record in view of the references, Bonke; Carl et al. (US 5812564 A, hereafter referred to as Bonke) and Yoshimura; Yoshimasa (US 5848076 A) as applied in the last office action, filed 06/09/2004. Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 6, 7, 12-17, 21-28, 32, 33, 35-38, 40 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Bonke; Carl et al. (US 5812564 A, hereafter referred to as Bonke).

35 U.S.C. 102(b) rejection of claims 1-3, 6, 7, 12-17, 21-28, 32, 33 and 35.

See the Non-Final Action filed 06/09/2004 for detailed action of prior rejections.

35 U.S.C. 102(b) rejection of claim 36.

Col. 18, lines 28-46 in Bonke teach that syndromes are stored in syndrome generator shift registers (Note: syndromes are a record of ECC errors).

35 U.S.C. 102(b) rejection of claim 37.

If the syndromes are all zero then error correction is bypassed and stored data is assumed valid.

35 U.S.C. 102(b) rejection of claim 38.

Steps 290, 294 and 300 teach a trap to software if an uncorrectable error is detected.

35 U.S.C. 102(b) rejection of claims 40 and 42.

See Host Connection 52 in Figure 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonke; Carl et al. (US 5812564 A, hereafter referred to as Bonke) in view of Yoshimura; Yoshimasa (US 5848076 A).

35 U.S.C. 103(a) rejection of claims 4 and 5.

See the Non-Final Action filed 06/09/2004 for detailed action of prior rejections.

5. Claims 8, 18-20 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonke; Carl et al. (US 5812564 A, hereafter referred to as Bonke).

35 U.S.C. 103(a) rejection of claims 8, 18-20 and 29-31.

See the Non-Final Action filed 06/09/2004 for detailed action of prior rejections.

6. Claims 9-11, 34 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonke; Carl et al. (US 5812564 A, hereafter referred to as Bonke) in

view of Hetherington; Ricky C. et al. (US 4995041 A. hereafter referred to as Hetherington).

35 U.S.C. 103(a) rejection of claims 9-11 and 34.

35 U.S.C. 103(a) rejection of claim 39.

Bonke substantially teaches the claimed invention described in claims 1-3, 6, 7 and 23 (as rejected above).

However Bonke does not explicitly teach that the ECC device in Bonke is used for cache memory.

Hetherington, in an analogous art, teaches ECC for use on cache memory. One of ordinary skill in the art at the time the invention was made would have been highly motivated to combine the teachings of Bonke with the teachings in the Hetherington patent since Bonke provides an ECC interface between memory devices for a host system and the host system at increased data transfer rates (col. 3, lines 1-10 in Bonke) and cache a peripheral memory device for a host system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bonke with the teachings of Hetherington by using the ECC interface taught in the Bonke patent for a cache memory. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that using the ECC

interface taught in the Bonke patent for a cache memory would have provided the opportunity to increase data transfer rates (col. 3, lines 1-10 in Bonke).

7. Claims 41 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agarwal; Anil K. et al. (US 6477669 B1, hereafter referred to as Agarwal).

35 U.S.C. 103(a) rejection of claims 41 and 43.

Agarwal substantially teaches the claimed invention described in claims 41 and 43 (as rejected above).

However Agarwal does not explicitly teach the specific use of a modem or audio device.

The Examiner asserts that modems and audio devices are common devices for connection to the Internet and listening to music. One only has to look at the computer system on which they are typing to verify this.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Agarwal by including use of a modem or audio device. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that use of a modem or audio device would have provided the opportunity to connect to the Internet and listen to music.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joseph D. Torres, PhD
Primary Examiner
Art Unit 2133